



Student Evaluation of Teaching: Bringing Principles into Practice

Geoff Tennant* & Tashmin Khamis**

Abstract

Student evaluation of the teaching process is an important quality assurance tool with the potential to give data that can be used to inform the development of courses and guidance of instructors. They have become increasingly important in western countries over the last forty years or so as their results are also used for 'high stakes' purposes. This paper examines the background of student evaluations, including reasons – sometimes conflicting – for undertaking them, choice of question items, administration, and analysis and use of results. The design of the Student Evaluation of Teaching used at the Aga Khan University is described; it looks to capture the student voice in a meaningful, helpful and proportionate manner. Data from the pilot stage, which assessed the efficacy of student evaluation of teaching, are given along with pointers for future good practices.

Résumé

L'évaluation du processus d'enseignement par les étudiants est un outil important de l'assurance qualité susceptible de fournir les données qui vont servir à orienter le développement des cours et de conseils pour les instructeurs. Elle devient de plus en plus importante dans les pays occidentaux depuis une quarantaine d'années, étant donné que ses résultats sont également utilisés dans les grands enjeux. Le présent article examine le contexte des évaluations par les étudiants, y compris les raisons – parfois conflictuelles – pour les entreprendre, le choix des éléments d'interrogation, l'administration, l'analyse et l'utilisation des résultats. Le modèle de l'évaluation de l'enseignement par les étudiants utilisé à l'université Aga Khan est décrit. Il cherche à faire entendre la voix de l'étudiant d'une manière significative, utile et proportionnée. Les données de la phase pilote, qui évaluent l'efficacité de l'évaluation de l'enseignement par les étudiants, ont été fournies avec des indications pour les futures bonnes pratiques.

* Teaching Programmes, Institute for Educational Development, Aga Khan University, Dar es Salaam, Tanzania. Email: geoff.tennant@aku.edu

** Teaching and Learning, Aga Khan University, Nairobi, Kenya. Email: tashmin.khamis@aku.edu

Introduction

Students are a key stakeholder group in higher education. Their voices legitimately need to be heard in decision making at the macro and micro level as universities work to prepare their students for the professional, social, and personal challenges of the twenty-first century.

This article is concerned with one aspect of students' voices: their evaluations of courses in which they participate. According to Morley (2014), student evaluations have been used on a voluntary basis in the United States of America since the 1920s, with increasing importance being put on them particularly since the 1970s. Examples can be found, such as Sumaedi, Bakti, and Metasari (2012) in Indonesia and Pickford (2013) in the United Kingdom, providing evidence that student evaluations are being taken very seriously. Additionally, a range of sophisticated statistical techniques have evolved to analyse these evaluation results (Morley 2014).

The Aga Khan University (AKU) is a private international university, which started in Pakistan in 1980 and expanded to East Africa in 2000. The quality of the provision of education is at the heart of the ethos of the university. Quality is privileged as one of its underlying principles along with access, impact and relevance. To facilitate shared resources and standards across its campuses, the Network of Quality Assurance and Improvement (QAI_net) was formed in 2014, along with the Network of Teaching and Learning and the Network of Blended and Distance Learning. QAI_net's work has included the developing and disseminating of a student evaluation questionnaire used on all campuses.

This paper examines the design and early roll-out of the AKU student evaluation questionnaire. It starts by going back to the beginning and asking some basic questions about student evaluations. What exactly is the purpose in administering student evaluations? What different methods are there for gathering student feedback? What can be done with the information once it has been gathered? The approach taken by AKU is then critically examined, with opportunities and challenges set out as we look to make meaningful and appropriate use of student evaluation data.

Why Undertake Student Evaluations?

First and foremost, the reason for undertaking a student evaluation of teaching exercise is to obtain feedback from students on the quality of courses and instructors. Such data can be used to inform the maintenance and improvement of the quality of courses and of teaching, as well as providing guidance and encouragement where appropriate to the faculty, based on what students are saying (e.g., Gravestock and Gregor-Greenleaf 2008).

Within the literature a number of other reasons for student evaluations are addressed. Perhaps not surprisingly, there is evidence that student evaluation is used to provide information for the promotion of academic staff (e.g., Emery, Kramer and Tian 2003) and to make decisions as to whether programmes should be allowed to continue (e.g., Pickford 2013). In addition, data are used to rank universities, the results are then published and these rankings are used by prospective students and their advisers to make informed choices about universities. For example, the National Student Survey in the UK and 'Top Universities', an international league table of universities, use student evaluations as one of their indicators (Pickford 2013; QS Quacquarelli Symonds Limited 2011). All of these reasons would come broadly under the heading of 'high stakes assessment' as for differing reasons and for differing groups of people, the results of the surveys can have significant consequences.

A key point, which underlies the rest of this paper, is that one cannot expect to simultaneously provide feedback both to produce league tables and also to improve teaching quality in a meaningful way. There is clear evidence (e.g., Pickford 2013) that, in a UK context at least, considerable efforts are put into chasing student evaluation figures for their own sake, quite apart from any underlying notion of student quality of experience. This is a point which the Aga Khan University has taken on, making it clear that the results of feedback should be used for formative purposes only with separate procedures like appraisal of the faculty used to determine summative and evaluative intents such as pay increments and promotions.

Beyond the reasons given above, it is increasingly the case that evaluations are required by national quality assurance bodies. In the UK context, the clear expectation is that students should be involved formally and informally in evaluation of teaching and other aspects of their experiences (QAA 2012). Across East Africa, with the support of the Inter-University Council for East Africa, quality assurance is becoming more formalised, with student evaluations a clear expectation of the QA framework (Cell 13, *Road Map to Quality*) (IUCEA 2010), and evidence from university websites that student evaluations are indeed being conducted in East Africa (eg., Technical University of Kenya 2015). Whilst research can easily be found on student evaluations from South Africa (eg., Atkins *et al.* 2016) it appears that research on student evaluations is yet to emerge from East Africa. This paper can therefore help set the scene for some critical work in years to come.

What Questions Does One Ask?

Underlying assumptions of any questionnaire, interview schedule or other data collection method are important. Insofar as student evaluations are

designed to uncover their perceptions of teacher quality, there is an implicit assumption of what represents teaching quality.

Shevlin, Banyard, Davies and Griffiths (2000:398) suggest that 'there appears to be little agreement on the nature and number of dimensions that represent teaching effectiveness'. This multi-dimensionality clearly matters in questionnaire design. So, whilst in isolation, asking students to agree or disagree with the statement, 'Tutorials or other individualised support offered by my university tutor(s) have met my needs',¹ would appear to be uncontroversial, there are assumptions here about what individualised support can offer. Particularly, it is perfectly possible that a student has 'needs' which this support cannot offer and this question could be taken to imply that a level of support ought to be provided which is not reasonably possible. Similarly, questions about clarity of explanation and the extent to which the learning process is straightforward could well be taken to conflict with principles of constructivist education and the notion of cognitive conflict: that real learning takes place against a background of a struggle (in a mathematics context see, for example, Von Glaserfeld 1991). It is possible to communicate the idea that if the university tutors were all doing their jobs 'perfectly' then all learning would be straightforward. This is, surely, an unhelpful message to students in preparing them to start or indeed to continue in the professional world of work.

In articulating the concept of the quality of teaching in higher education, Chickering and Gamson (1987) provide the following list of seven key attributes of good teaching that have been validated by Gibbs (2010):

- encourages contacts between students and faculty;
- develops reciprocity and cooperation among students;
- uses active learning techniques (or 'encourages active learning');
- gives prompt feedback;
- emphasises time on task;
- communicates high expectations; and
- respects diverse talents and ways of learning.

As noted below, these attributes were used as the theoretical basis for the pilot AKU student evaluation of teaching form, with a question relating to each point above.

The Briefing of Students

If the purpose of the evaluation is 'high stakes' then, as noted above, it is likely that there is pressure applied, whether internally or externally, to achieve

favourable student responses. This imperative would apply either to 'high stakes' for the institution – good student evaluation results help to ensure high positions in inter-university league tables – or for the individual tutors, if promotions, pay increments and other prospects depend on the evaluations.

If one uses the Chickering and Gamson (1987) list as a starting point for a questionnaire, then one would include a question about the timeliness of feedback. This leaves open the possibility that students have unrealistic expectations as to how quickly assessments can be marked, regardless of tutors' other commitments and procedures such as second marking. But, if tutors are operating within a stated policy and students are nevertheless feeling that it is taking too long for feedback to be given, consideration and reflection on the interpretation of this point is needed.

So, does one set out in the brief to students the policies on such matters as timing of returning of feedback? Does one remind students of sessions undertaken before they fill out evaluations for fear that they have forgotten about them? This again comes back to the purpose of the evaluation. If it is in some manner high stakes then one might well do so. If one is genuinely looking to know what students are prepared to say about the course, one leaves them to fill out the form as they see fit. And, if students say in an evaluation that an aspect has not been covered when, in fact, it has, that in itself is interesting, with potential follow-up action arising.

Many research projects are undertaken with large sample sizes and sophisticated statistical techniques (e.g., Morley 2014) which do not ask about how the evaluation was introduced. However, to enhance comparability from one group of students to another in the feedback that they give, it may reasonably be considered that the briefing given needs to be comparable.

How does One Gather Evaluation Data from Students?

Questionnaires

One common way of gathering data is through questionnaires, administered either in paper form or electronically, e.g., through the use of Survey Monkey² (which is free for a basic service) or Bristol Online Surveys³ (for which a fee is payable). Whilst electronic feedback has resource implications and students may not entirely trust assurances that their evaluations are kept confidential when given in this form, (e.g., in a Canadian context Gravestock and Gregor-Greenleaf 2008) advantages include a considerable saving of administrative time in inputting data and greater accuracy in capturing student inputs.

Questionnaires: Likert Scales

Frequently questionnaires include batteries of questions for students to work through, often using Likert scales. Arguably this approach yields a large amount of information quickly which can then be analysed at greater or lesser levels of depth (e.g., Sumaedi *et al.* 2012).

Typically Likert scales have four to five points, e.g., strongly agree / agree / disagree / strongly disagree, depending on the precise wording of the opening statement. A fifth point allows for a neutral position. Whilst Likert scales get around the problem of forcing a 'Yes' or 'No' reply to questions like, 'My tutor responds sensitively to questions during sessions', it does not overcome the difficulty of different understandings of the same question. Discussion can be found on the unwillingness of participants to use the extremes of scales, with evidence that people may interpret the scales differently by gender and ethnicity (e.g., Batchelor, Miao and McDaniel 2013). This variability would appear to be an under-researched point, specifically within the context of student evaluations and, within the developing world context in which the Aga Khan University predominantly operates, being a potential area for study.

Whilst it might be considered that a series of statements to which students respond using a Likert scale gives rise to a large amount of information without taking much of the students' time, there are a number of problems arising from this approach. Evidence suggests that, when faced with a long list of questions to answer, students do not answer each item individually but give an overall impression as to how they are feeling. Emery *et al.* (2003) give an example of thirty-two students on a course not using laboratories, with only twelve of them giving 'not applicable' to questions about the laboratory work being beneficial and correlated with class and the rest proceeding with a rating. Similarly, when one of the current authors was involved in an evaluation project (Tennant 2001), evaluation forms were observed being given out sometime before the end of the day, which did not stop many participants giving a rating on events which had not, at the time of writing, actually happened. A student dissatisfied with a personal tutor may give a low rating on an item such as 'My tutor was available for individual consultations' despite the tutor being available on both a proactive and reactive basis, thus not reflecting the reason for the student's discontent.

These findings suggest that, if one is to use Likert scales on student evaluation forms, the number of items should be kept reasonably short with, if possible, big differences between the topics of questions from one to the next. Bespoke questionnaires should be asked without redundant questions (e.g., about laboratory work on courses which do not involve it), or should be 'greyed out.' At the very least, they should be discounted when analysed.

Questionnaires: Free-Text Answers

Another way of getting feedback from students is in discursive form. Whilst this, in principle, allows students to express themselves away from the constraints of answering specific questions, there are potential problems with this approach. Across AKU, students are almost exclusively non-native speakers of English, and it can be difficult to work out what it is that students are intending to say in an evaluation exercise, which, of course, does not allow for redrafting or peer group support. This potentially yields comments made by one student such as, 'He seems to be having enough and addition can easily dilute what he has'. Due to the imperative for anonymisation, it is not possible to ask the student for clarification. In addition, comments like, 'Using of relevant examples from East African context' in isolation are also problematic as we are unclear whether this approach was or was not done in the course. Another consideration is when to ask students to fill out these questionnaires; at the end of the last session with students free to go immediately afterwards is possibly not the best time. Another point, which is returned to below, is the importance of ensuring that students feel that their comments are valued.

Student Evaluations of Teaching–Learning: Other Forms

Other forms of evaluation worth considering are whole group discussions once the tutor has left the room, having appointed a chair and a secretary. Guidelines on forms of feedback are helpful, including suggesting positive future action rather than dwelling on previous perceived weaknesses. Students may be divided into small groups to discuss issues. A student representative system can also be valuable to help members of the faculty understand the student perspective.

Response to Results

Once one has results an analysis must follow, ideally with the format determined before the evaluation is conducted. Some possibilities follow.

Listen but Take no Action

One might reasonably consider that one of the purposes of student evaluations is to give students the chance to say what they want to say, essentially to 'blow off steam'. Taking initial teacher training as an example, lesson planning is extremely difficult to implement well. There can be a strong temptation to give a negative rating to an evaluation item, such as 'University sessions prepared me well for lesson planning', when, in fact, the sessions were entirely fit for purpose. The problem arguably is with the question that implies if the

university tutor is teaching properly then lesson planning will be found to be straightforward by the student teachers, when this is simply not the case.

Giving students the opportunity to give this type of evaluation may well be cathartic for them, thus fulfilling a useful purpose. Whilst one needs to be mindful that there is always room for improvement for programme provision and student learning experience, an appropriate response to this kind of feedback may well be to summarise the issue in a report but make no substantive change to the approach taken in university sessions.

Another related issue, not least in the developing world contexts in which AKU operates, is that a tutor may be looking to use teaching methods other than lecturing which may not be immediately familiar to students. As noted earlier, part of the constructivist theory of learning is 'cognitive conflict' – the process of learning may in the short, or even medium term, be uncomfortable as old, sometimes deeply-rooted ideas are jettisoned before new learning takes its place. It is possible that, in the middle of this process, students asked in an evaluation about quality of teaching will give a negative score. This is consistent with Emery *et al.* (2003) who argue that the net effect of a culture which takes student evaluations too seriously is to stultify innovation in teaching, resulting in bland, safe experiences for students.

So, if one of the purposes of student evaluation is to allow students to have their say, one needs to give them space to do this. There is a time and a place for university staff, with experience and understanding of teaching methods and the practicalities of running courses, to respectfully disagree with what students are saying, to comment on the matter in a report made to students, but to take no further action. This points, again, to the need to assess the results of Student Evaluation of Teaching (SET) in a proportionate, reflective manner.

Interpreting Figures

As reported by Emery *et al.* (2003) and in the initial AKU evaluations reported below, students rate their tutors very highly. Whilst one may consider this to be a positive, it can lead to problems of interpretation. So, on a 5-point scale where 1 is low and 5 is high, Emery *et al.* cite the case of a lecturer who scored 4.72 for knowledge of the subject on average by her students against an institutional average of 4.77. Whilst one might regard this as highly respectable, in fact, this lecturer had knowledge of subject noted as an area of under-performance on her annual review.

There are a number of issues related to interpreting small amounts of data, with the possibility that student pre-briefing regarding the evaluation exercise can contribute to a difference in student evaluations. So, if students

are giving a lecturer a score of 4.72 out of a maximum total of 5 for subject knowledge, this would be considered high in any analysis, and despite it is marginally below the average for the institution would seem to be irrelevant and it is well within the margin for error in collecting small amounts of data. Further, with such high averages, a very small number of students, with unhelpful motivations, can bring a tutor's score down dramatically by giving very low ratings quite apart from perceived quality of teaching.

It would seem reasonable to suppose that any score or average score of 4.0 or above on a 5 point scale is very respectable and that calculating differences and trends in this range makes little sense unless one has access to a large amount of data, which would therefore be on an institutional rather than individual tutor level. If scores fall below that, then there is reason for a member of the management team to talk with relevant colleagues, looking to explore what has been happening, ask questions, and offer support where necessary. In accordance with comments above about standing firm in the face of negative student feedback, any such conversation needs to start from the view that there may not, ultimately, be anything wrong.

In terms of discursive comments, a level of judgement needs to be exercised depending on what the comment is and how many students are saying broadly the same thing. Of critical importance, there needs to be a sense that students are being listened to, even if they are not being given exactly what they ask for.

Summary of Background Considerations

This discussion suggests the following point as good practice for working with SET:

- decide in advance what the purpose of the evaluation is, avoiding the temptation to have too many purposes simultaneously;
- consider what the underlying model of quality teaching practice is to which you are working, and devise questions accordingly;
- having decided the purpose, formulate an appropriate way of introducing the evaluation procedure;
- limit the number of questions asked using Likert scales;
- have the confidence to disagree with student evaluations when there are good reasons for doing so;
- write a summary of the evaluation data and a response to it, and make this available to students;
- where appropriate, act to address student concerns which arise;
- ensure that there are multiple forms of student evaluation data considered; and

- if at all possible, withstand pressure to take the process too seriously without detriment to the intent of the process.

The next section looks at how these principles are being implemented at the Aga Khan University.

The Aga Khan University Experience

As noted in the introduction, the Network of Quality Assurance and Improvement was formed in 2014 within the Aga Khan University as a means of supporting quality assurance procedures across the university, operating as it does in Africa, Asia and Europe. Part of this effort was to agree to a university wide SET format with a view to consistently and realistically capture student voices as part of ensuring high quality programmes across the university.

The development of this tool was underpinned by an understanding of what is important in assessing teacher quality, drawing particularly on Chickering and Gamson (1987), Gravestock and Gregor-Greenleaf (2008), and university policies on student-centred learning such as the AKU Teaching and Learning Framework (Policy 030, AKU website), looking to ensure that graduates leave with the skills to be problem solvers, critical innovative thinkers, lifelong learners, good communicators and ethically responsible citizens and leaders. In developing the tool, the intention was that this approach should constitute one of several sources of information to assess quality of teaching, with others including ongoing dialogue with faculty members and assignment results.

For questions using a Likert scale, it was decided to use a four-point scale plus 'not applicable', allowing for legitimate variation in responses but requiring students to take a stand on each statement.

Whilst the tool is designed for use at the end of the course before summative assessments, faculty members are encouraged to undertake mid-course evaluations with a view to being responsive to students during a semester.

The SET was piloted both online (using Survey Monkey[®]) and in hard copy in various departments in Pakistan, UK, Uganda and Tanzania in 2014. Twenty-six different courses were evaluated by students in diploma, undergraduate, and master's programmes. Findings were returned to the institutions through heads of programmes, after final course assessments had been returned, in the expectation that they would be used in a formative manner, with no link being made to appraisal or other such mechanisms.

Findings

Four hundred and twenty-nine of seven hundred students (61.3 %) responded to the pilot SET. Entities chose to either use the online version or the hard copy, with response rates being noticeably better for the hard copy (86 %) compared with the online survey (51 %). Students were given the same introduction and form to fill. However, as the hard copy was given to students at the end of a class many chose to respond there and then, whereas the online SET was sent to their email addresses.

As shown in Table 1 below, over 90 per cent of students (both online and hard copy) found the SET form's instructions, rating scale and questions to be clear as well as indicating that it took a reasonable time to fill out. The majority also preferred the pilot SET form over previous versions used. The majority of students (62 %) felt the form should be mandatory, possibly because of the link made on the form itself between student feedback and improvement in teaching quality. However, this element was the only question which had a rating below 75 % agreement and given the voluntary participation (with nearly 40 per cent not responding) one might limit extrapolating meaning given the specific demographics of the completers.

Table 1: Student feedback on the new SET form

Feedback	% In agreement	% Not in agreement
The instructions were clear.	98.6	1.4
The questions were clear.	97.9	2.1
The rating scale was clear.	90.1	9.9
The survey took a reasonable amount of time to fill out.	88.7	11.3
Completing the survey should be mandatory.	62.2	37.8
Preferred this SET to previous one.	80	20
I would not change anything in this survey.	78.5	21.5

Discussion of Results

Response rate is higher for paper than for online evaluations. Although this difference merits further investigation, a possible explanation is that the students undertaking the evaluation in the paper format did so during class time, so were, in effect, a captive audience, while those using the online format may have been doing so in their own time. Whilst it is possible to note which students have and have not filled out an online questionnaire, to collate this information

and use it to send reminders conflicts with the principle of anonymity. The intention is to work with heads of programme across the university to ensure high response rates through all formats.

Overall, the extent to which students were comfortable with the SET approach was very encouraging, giving a strong basis to encourage the use of this data in working with the faculty to ensure the highest quality outcomes.

Conclusion and Recommendations

Following the success of the pilot, the intention is to roll out the SET form to all AKU courses and instructor evaluations at the end of a course and before the final assessment or examination. For ease of analysis of results, the platform has moved from Survey Monkey[®] to Bristol Online Surveys[®]. Whilst analysing the data arising can be done automatically when questionnaires are online, consideration is being given to the analysis of forms completed in paper form, particularly noting the need, if at all possible, to separate out the administration and analysis of such forms as a means of ensuring, and being seen to ensure, a system free from any corruption.

As systems become more established, the expectation is that departments within the university will write reports responding to the points made and using the data in a formative manner to support the faculty and the quality of programmes. Where evaluation data uncover particularly high levels of student satisfaction, the intention is to find ways to celebrate that, both for its own sake and again for shoring up high standards of practice. Globally, as SET procedures have matured they have been used for an increasingly large number of purposes, albeit some contradictory. It is the intention of the QAI_net, working within the Aga Khan University, to ensure that the SET procedure described here will be used as part of the pool of information for the maintenance and improvement of teaching and learning, working supportively with the faculty to ensure the highest quality that can be achieved and aligned to a collective understanding of teaching excellence at the university.

Notes

1. This question comes from a student evaluation questionnaire used in initial teacher training courses in the UK.
2. <https://www.surveymonkey.com/>
3. <http://www.survey.bris.ac.uk/>

References

- Atkins, S., Yan, W., Meragia, E., Mahomed, H., Rosales-Klitz, S., Skinner, D., and Zwarenstein, M., 2016, 'Student experiences of participating in five collaborative blended learning courses in Africa and Asia: a survey', *Global Health Action*, No. 9, pp. 1–10.
- Batchelor, J. H., Miao, C., and McDaniel, M. A., 2013, 'Extreme response style: a meta-analysis', presented at the 28th Annual Conference of the Society for Industrial and Organizational Psychology, Houston. Available online at <http://www.people.vcu.edu/~mamcdani/Publications/Batchelor,%20Miao%20&%20McDaniel%20%282013,%20April%29%20extreme%20responding.pdf>.
- Chickering, A. W., and Gamson, Z. F., 1987, 'Seven principles for good practice in undergraduate education', *American Association of Higher Education Bulletin*, Vol. 39, No. 7, pp. 3–7.
- Emery, C. R., Kramer, T. R., and Tian, R. G., 2003, 'Return to academic standards: a critique of student evaluations of teaching effectiveness'. *Quality Assurance in Education*, Vol. 11, No. 1, pp. 37–46.
- Gibbs, G., 2010, *Dimensions of quality*, York: Higher Education Academy.
- Gravestock, P., and Gregor-Greenleaf, E., 2008, *Student Course Evaluations: Research, Models and Trends*, Toronto: Higher Education Quality Council of Ontario.
- IUCEA, 2010, *A Road Map to Quality: Handbook for Quality Assurance in Higher Education*, Arusha: IUCEA.
- Morley, D., 2014, 'Assessing the reliability of student evaluations of teaching: choosing the right coefficient', *Assessment & Evaluation in Higher Education*, Vol. 39, No. 2, pp. 127–139.
- Pickford, R., 2013, 'Leadership of the National Student Survey for enhancement', *Quality Assurance in Education*, Vol. 21, No. 4, pp. 344–358.
- QAA, 2012, *Student Experience Research 2012 Part 1: Teaching and Learning*, London: National Union of Students.
- QS Quacquarelli Symonds Limited, 2011, 'QS Stars: Methodology Top Universities'. Available online at <http://www.topuniversities.com/qs-stars/qs-stars-methodology>.
- Shevlin, M., Banyard, P., Davies, M., and Griffiths, M., 2000, 'The validity of student evaluation of teaching in higher education: love me, love my lectures?', *Assessment & Evaluation in Higher Education*, Vol. 25, No. 4, pp. 397–405. Available online at <https://doi.org/10.1080/713611436>.
- Sumaedi, S., Bakti, G. M. Y., and Metasari, N., 2012, 'An empirical study of state university students' perceived service quality', *Quality Assurance in Education*, Vol. 20, No. 2, pp. 164–183.
- Technical University of Kenya, 2015, 'Student evaluation on course units and lecturers. Available online at <http://tukenya.ac.ke/student-evaluation-course-units-and-lecturers>.
- Tennant, G. D., 2001, 'The Model United Nations General Assembly Project', *Teaching Citizenship*, No. 1, pp. 34–37.
- von Glaserfeld, E., ed., 1991, *Radical Constructivism in Mathematics Education*, Dordrecht: Kluwer Academic Publishers.

Appendix: Pilot SET Form

AGA KHAN UNIVERSITY		DID YOU KNOW?	
Student Evaluation of Teaching (SET)		Your input is voluntary and anonymous	
Course Instructor	Current Year	Your feedback enhances teaching quality	
Course Title	Year Group/Class of	Course reviews will take into account your opinions	
Department/Program	Semester	Your input helps strengthen the learning experience	

INSTRUCTOR EVALUATION: For each statement tick the box you most agree with. "Instructor" refers to your faculty member/teacher/facilitator.	Sometimes	Frequently	Always	Not applicable
Principle 1: Encourages Contact between Students and Faculty				
1. My instructor was available and accessible when I needed either through office visits or by email or other means.				
Principle 2: Develops Reciprocity and Cooperation among Students				
2. My instructor provided opportunities for me to collaborate with other students.				
Principle 3: Encourages Active Learning				
3. My instructor encouraged participation and provided opportunity for group work and discussion.				
Principle 4: Gives Prompt Feedback				
4. My instructor's feedback on course assignments, projects, clinical work, papers and/or tests provided timely guidance on how to improve my performance.				

Principle 5: Emphasizes Time on Task					
5. My instructor provided a detailed course outline at the beginning of the course and organized course concepts and content in a logical manner.					
Principle 6: Communicates High Expectations					
6. My instructor shared grading expectations (rubrics) for all assignments with us.					
Principle 7: Respect Diverse Talents and Ways of Learning					
7. My instructor used a variety of learning activities (e.g., discussions, small group projects, labs, the web, educational technology) that engaged me and met my own learning needs.					
Indicator of Overall Satisfaction with Instructor					
8. Overall, I would recommend this instructor as an effective university teacher.					
Please provide supplementary comments for the instructor on the overall quality of the instruction in this course. Your comments are anonymous and will not be given to the instructor until final grades have been submitted to the Registrar. Please be sure your comments about the instructor are fair, constructive, useful and relevant.					

COURSE EVALUATION: For each statement tick the box you most agree with.	Not at All	Somewhat Agree	Mostly Agree	Agree Completely	Not Applicable
9. The course provided me with a deeper understanding of the concepts and subject matter.					
10. The course projects, assignments, tests, and/or exams provided opportunity for me to demonstrate an understanding of the course material.					
11. The course learning outcomes were met.					
12. The course field experience and/or clinical component improved my understanding of the course material.					
13. The course provided opportunity to draw from scholarly research.					
14. Adequate support (e.g. educational technology and library resources) was available and accessible to enhance my learning.					
15. Course concepts were clearly presented.					
16. The course provided opportunity for me to critically reflect on practice or on important issues in the subject matter.					
17. Course projects and/or assignments provided opportunity for creativity and innovative thinking.					
18. I found the course intellectually stimulating and motivating.					
19. Please tick which, if any, of the following competencies this course met:					
20. If I were to change something about this course it would be...					
Please provide supplementary comments for the course. Your comments are anonymous and will not be given to the instructor until final grades have been submitted to the Registrar. Please be sure your comments about the course are fair, constructive, useful and relevant.					